

Application #09/646,640
Amendment dated August 18, 2005

Amendments to the claims:

1. (cancelled).

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (cancelled)

6. (cancelled)

7. (cancelled)

8. (cancelled)

9. (cancelled)

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1 10. (currently amended) Data protection method, ~~for protecting data~~
2 ~~elements processed by a microprocessor in a chip card from~~
3 ~~discovery by analysis of the microprocessor's electric power~~
4 ~~consumption~~ said method using a cryptographic algorithm for
5 executing operations for processing said data elements so as to
6 generate encrypted information, said method comprising:
7 randomly modifying the order of execution of operations from
8 one cycle to another, a cycle being a complete execution cycle of
9 the algorithm or an intermediate cycle of a group of operations,
10 said operations being operations whose order of execution relative
11 to the others does not affect the result, thereby protecting said data
12 elements processed by a microprocessor in a chip card from
13 discovery by analysis of the microprocessor's electric power
14 consumption.

1 11. (previously presented) The protection method according to claim
2 10, wherein the modified order of execution of operations include
3 permutation of bits of a message block before permutation of bits of
4 a key, and vice versa.

1 12. (previously presented) The protection method according to claim
2 10, wherein the modified order of execution of operations include
3 modifying the order of processing quartets making up a data
4 element.

1 13. (previously presented) The protection method according to claim
2 10, wherein the modification of the order of execution of operations
3 is random.

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1 14. (new) Data protection method, said method using a cryptographic
2 algorithm for executing operations for processing data elements so
3 as to generate encrypted information, said method comprising:
4 using a symmetric cryptographic algorithm of the DES-type with a
5 permutation step, said permutation step including a random
6 determination of a processing order of the bits for the execution of
7 the permutation step, thereby protecting said data elements
8 processed by a microprocessor in a chip card from discovery by
9 analysis of the microprocessor's electric power consumption.

1 15. (new) The data protection method of Claim 14 wherein the
2 cryptographic algorithm for executing operations for processing
3 data elements includes a group of operations executed repeatedly.